#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-020766 Address: 333 Burma Road **Date Inspected:** 21-Feb-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Zho Zhong Hai No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** Orthotropic Box Girder (OBG)

### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

**OBG # TRIAL ASSEMBLY YARD** 

#### WELDING:

Segment 12BW ~ 12CW

This QA Inspector observed ZPMC qualified welding personnel identified as 046709 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBW12C-001; located On Orthotropic Box Girder (OBG)Bottom Plate to Bottom Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. The Welding Repair Report (WRR) was B-WR20263. This QA Inspector observed the base material appears to have been being preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhou Peng was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW-1G (1F) FCM-Repair-1. See attached photo for further details.

Segment 12BE

# WELDING INSPECTION REPORT

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This QA Inspector observed ZPMC qualified welding personnel identified as 040320 perform Shielded Metal Arc Welding (SMAW), weld joint identified as DP3018-001-021; located On Orthotropic Box Girder (OBG) Deck Plate to Longitudinal Diaphragm CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. This QA Inspector observed the base material appears to have been being preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Wang Li Yang was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-TC-U4b-FCM-1. See attached photo for further details.

#### Segment 12BW ~ 12CW

This QA Inspector observed ZPMC qualified welding personnel identified as 040775 perform Flux Cored Arc Welding (FCAW), weld joint identified as OBW12C-001; located On Orthotropic Box Girder (OBG) Bottom Plate to Bottom Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. The Welding Repair Report (WRR) was B-WR20263. This QA Inspector observed the base material appears to have been being preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhou Peng was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW-1G (1F) FCM-Repair-1.

### Segment 12CW

This QA Inspector observed ZPMC qualified welding personnel identified as 040775 perform Flux Cored Arc Welding (FCAW), weld joint identified as SEG3006S-035; located On Orthotropic Box Girder (OBG) Bottom Plate to Side Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. This QA Inspector observed the base material appears to have been being preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhou Peng was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-T-2232-ESAB.

### Segment 12BW ~ 12CW

This QA Inspector observed ZPMC qualified welding personnel identified as 041713 perform Flux Cored Arc Welding (SMAW), weld joint identified as OBW12A-001; located On Orthotropic Box Girder (OBG) Deck Plate to Deck Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. This QA Inspector observed the base material appears to have been being preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhou Peng was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-B-U2-FCM-1.

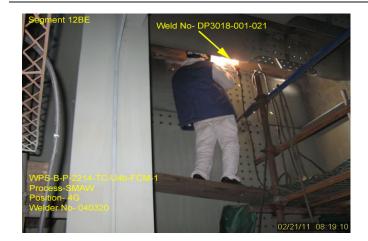
#### Segment 12CW

This QA Inspector observed ZPMC qualified welding personnel identified as 067183 perform Flux Cored Arc Welding (SMAW), weld joint identified as SEG3003T-145; located On Orthotropic Box Girder (OBG) Floor Beam to Stiffener Fillet Weld; ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. This QA Inspector observed the base material appears to have been being preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhou Peng was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2112-FCM-1

Unless otherwise noted, all work observed on this date appeared to generally comply with the applicable contract documents.

# WELDING INSPECTION REPORT

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# **Summary of Conversations:**

No significant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhune,Manoj	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer